EV 507590115 US

OIPE JC103 NOV 15 2004 PATENT & TRADEMARK OFFICE

PTO/SB/08a (08-03)
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Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 20

Complete If Known	
Application Number	10/777,471
Filing Date	02/04/04
First Named Inventor	Adnan M.M. Mjalli
Art Unit	~~1615~~ 1626
Examiner Name	~~Unknown~~ Stockton
Attorney Docket Number	TTP 2002-07

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number: Number - Kind Code[2] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
LLS	TR-190	US- 20020002199	01/03/2002	Jeppesen et al.	
	TR-191	US- 20020009762	01/24/2002	Flint et al.	
	TR-192	US- 20020035137	03/21/2002	Liu et al.	
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	TR-201	US- 20030114703	01/19/03	Leblanc et al.	
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	TR-204	US- 20030153756	08/14/2003	Guertin et al.	
	TR-205	US- 20030170660	09/11/2003	Sondergaard et al.	
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	TR-207	US- 20030130335	07/10/2003	Mjalli et al.	
	TR-208	US- 20030215899	11/20/2003	Meng et al.	
	TR-209	US- 20030217379	11/20/2003	Kennedy et al.	
LLS	TR-210	US-20030194745	10/16/2003	McDowell et al.	

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Examiner Initials*	Cite No.[1]	Foreign Patent Document: Country Code[3] - Number[4] - Kind Code[5] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]

Examiner Signature	/Laura L. Stockton/	Date Considered	01/18/2007

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 2 of 20

Complete If Known	
Application Number	10/777,471
Filing Date	02/04/04
First Named Inventor	Adnan M.M. Mjalli
Art Unit	1615
Examiner Name	Unknown
Attorney Docket Number	TTP 2002-07

U.S. PATENT DOCUMENTS

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LLS	TR-211	US- 20040009946	01/15/2004	Lewis et al.	
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	TR-217	US- 20040138218	07/15/2004	Pallen et al.	
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Sheet 3 of 20

Complete if Known	
Application Number	10/777,471
Filing Date	02/04/04
First Named Inventor	Adnan M.M. Mjalli
Art Unit	1615
Examiner Name	Unknown
Attorney Docket Number	TTP 2002-07

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LLS	TR-163	US- 5,348,989	09/20/1994	Romine et al	
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	TR-165	US- 6,174,874	01/16/2001	Wang et al.	
	TR-166	US- 6,214,564	04/10/2001	Rodan et al.	
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 4 of 20

Complete if Known	
Application Number	10/777,471
Filing Date	02/04/04
First Named Inventor	Adnan M.M. Mjalli
Art Unit	1615
Examiner Name	Unknown
Attorney Docket Number	TTP 2002-07

U.S. PATENT DOCUMENTS

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LLS	TR-183	US- 6,613,903	09/02/2003	Andersen et al.	
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	TR-186	US- 6,765,021	07/20/2004	Butera et al.	
	TR-187	US- 6,770,466	08/03/2004	Shi et al.	
	TR-188	US- 6,777,433	08/17/2004	Leblanc et al.	
LLS	TR-189	US- 6,784,205	08/31/2004	Barr et al.	
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 6 of 20

Complete if Known	
Application Number	10/777,421
Filing Date	02/04/04
First Named Inventor	Adnan M.M. Mjalli
Art Unit	1615
Examiner Name	Unknown
Attorney Docket Number	TTP 2002-07

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T [2]
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Sheet 6 of 20

Complete if Known	
Application Number	10/777,481 ~~X~~ 471
Filing Date	02/04/04
First Named Inventor	Adnan M.M. Mjalli
Art Unit	1615
Examiner Name	Unknown
Attorney Docket Number	TTP 2002-07

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
LLS	TR-12	WANG WQ, "An overview of the protein tyrosine phosphatase superfamily." Current Topics in Medicinal Chemistry, 3:739-748 (2003)	
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	TR-15	PATANI G. "Bioisosterism: A Rational Approach in Drug Design." Chemical Review, 96, 3147-3176 (1996)	
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	TR-22	SUN JP, "Crystal structure of PTP1B complexed with a potent and selective bidentate inhibitor." The Journal of Biological Chemistry, 278:12406-12414 (2003)	
↓	TR-23	DATABASE CAPLUS 'Online! CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; retrieved from STN accession no. 62:29663 Database accession no. 1965:29663 RNs 805-66-3 and 810-22-0 abstract & PYL T ET AL: ANN., 1964, Page 679	
LLS	TR-24	YAN Z, "Design and synthesis of phosphotyrosine mimetics." Bioorganic & Medicinal Chemistry Letters, 13:2083-2085 (2003)	

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Filing Date	02/04/04
First Named Inventor	Adnan M.M. Mjalli
Art Unit	1615
Examiner Name	Unknown
Attorney Docket Number	TTP 2002-07

NON PATENT LITERATURE DOCUMENTS

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Examiner Signature	/Laura L. Stockton/	Date Considered	01/18/2007

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 8 of 20

Complete if Known	
Application Number	10/777,484 431
Filing Date	02/04/04
First Named Inventor	Adnan M.M. Mjalli
Art Unit	1615
Examiner Name	Unknown
Attorney Docket Number	TTP 2002-07

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
LLS	TR-36	CROSS KP, "Finding discriminating structural features by reassembling common building blocks." Journal of Medicinal Chemistry, 46:4770-4775 (2003)	
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Sheet 9 of 20

Complete if Known	
Application Number	10/777,431
Filing Date	02/04/04
First Named Inventor	Adnan M.M. Mjalli
Art Unit	1615
Examiner Name	Unknown
Attorney Docket Number	TTP 2002-07

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
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Sheet 10 of 20

Complete if Known	
Application Number	10/777,471
Filing Date	02/04/04
First Named Inventor	Adnan M.M. Mjalli
Art Unit	1615
Examiner Name	Unknown
Attorney Docket Number	TTP 2002-07

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
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Sheet 11 of 20

Complete if Known	
Application Number	10/777,427 ~~427~~ 427
Filing Date	02/04/04
First Named Inventor	Adnan M.M. Mjalli
Art Unit	1615
Examiner Name	Unknown
Attorney Docket Number	TTP 2002-07

NON PATENT LITERATURE DOCUMENTS

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	TR-76	RONDINONE CM, "Protein tyrosine phosphatase 1B reduction regulates adiposity and expression of genes involved in lipogenesis." Diabetes, 51:2405-2411 (2002)	
	TR-77	RAMACHANDRAN C, "Protein tyrosine phosphatase 1B: a novel target for type 2 diabetes and obesity." Current Topics in Medicinal Chemistry, 3:749-757 (2003)	
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 12 of 20

Complete if Known	
Application Number	10/777,431
Filing Date	02/04/04
First Named Inventor	Adnan M.M. Mjalli
Art Unit	1615
Examiner Name	Unknown
Attorney Docket Number	TTP 2002-07

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
LLS	TR-82	GOLDSTEIN BJ, "Protein-tyrosine phosphatase 1B (PTP1B): a novel therapeutic target for type 2 diabetes mellitus, obesity and related states of insulin resistance." Current Drug Targets - Immune, Endocrine & Metabolic Disorders, 1:265-275 (2001)	
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	TR-87	HUNDAHL MOLLER N.P. et al: "Protein Tyrosine Phosphatases (PTPs) as Drug Targets: Inhibitors of PTP-1B for the Treatment of Diabetes: CURRENT OPINION IN DRUG DISCOVERY AND DEVELOPMENT, CURRENT DRUGS, LONDON, GB, vol. 3, pages 527-540 (2000)	
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 13 of 20

Complete if Known	
Application Number	10/777,421
Filing Date	02/04/04
First Named Inventor	Adnan M.M. Mjalli
Art Unit	1615
Examiner Name	Unknown
Attorney Docket Number	TTP 2002-07

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
LLS	TR-94	GALIC S, "Regulation of insulin receptor signaling by the protein tyrosine phosphatase TCPTP." Molecular And Cellular Biology, 23:2096-2108 (2003)	
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 14 of 20

Complete if Known	
Application Number	10/777,481
Filing Date	02/04/04
First Named Inventor	Adnan M.M. Mjalli
Art Unit	1615
Examiner Name	Unknown
Attorney Docket Number	TTP 2002-07

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials *		Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
LLS		TR-105	GROVES M, "Structural Basis for Inhibition of the Protein Tyrosine Phosphatase 1B by Phosphotyrosine Peptide Mimetics" Biochemistry, 37:17773-17783 (1998)	
		TR-106	SARMIENTO M, "Structural basis of plasticity in protein tyrosine phosphatase 1B substrate recognition" Biochemistry, 39:8171-8179 (2000)	
		TR-107	LAU C, "Structure based design of a series of potent and selective non peptidic PTP-1B inhibitors" Bioorganic & Medicinal Chem. Letters, 14: 1043-4048 (2004)	
		TR-108	VERSEN LF, "Structure determination of T cell protein-tyrosine phosphatase." The Journal of Biological Chemistry, 277:19982-19990 (2002)	
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		TR-110	IVERSEN LF, "Structure-based design of a low molecular weight, nonphosphorus, nonpeptide, and highly selective inhibitor of protein-tyrosine phosphatase 1B." The Journal of Biological Chemistry, 275:10300-10307 (2000)	
		TR-111	LUND IK, "Structure-based design of selective and potent inhibitors of protein-tyrosine phosphatase beta." The Journal of Biological Chemistry, 279:24226-24235 (2004)	
		TR-112	SARMIENTO M, "Structure-based discovery of small molecule inhibitors targeted to protein tyrosine phosphatase 1B." Journal of Medicinal Chemistry, 43:146-155 (2000)	
		TR-113	WANG J, "Structure-based Prediction of Free Energy Changes of binding of PTP1B Inhibitors" Journal of Computer-Aided Molecular Design, 17:495-513 (2003)	
		TR-114	MCCAIN DF, "Suramin derivatives as inhibitors and activators of protein-tyrosine phosphatases." The Journal of Biological Chemistry, 279:14713-14725 (2004)	
		TR-115	LILJEBRIS C, "Synthesis and biological activity of a novel class of pyridazine analogues as non-competitive reversible inhibitors of protein tyrosine phosphatase 1B (PTP1B)." Bioorganic & Medicinal Chemistry, 10:3197-3212 (2002)	
↓		TR-116	LARSEN SD, "Synthesis and biological activity of a novel class of small molecular weight peptidomimetic competitive inhibitors of protein tyrosine phosphatase 1B" Journal of Medicinal Chemistry, 45:598-622 (2002)	
LLS		TR-117	THERIEN M, "Synthesis of a novel peptidic photoaffinity probe for the PTP-1B enzyme." Bioorganic & Medicinal Chemistry Letters, 14:2319-2322 (2004)	

Examiner Signature	/Laura L. Stockton/	Date Considered	01/18/2007

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 15 of 20

Complete if Known	
Application Number	10/777,471
Filing Date	02/04/04
First Named Inventor	Adnan M.M. Mjalli
Art Unit	1615
Examiner Name	Unknown
Attorney Docket Number	TTP 2002-07

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No.[1]	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T[2]
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	TR-119	LEUNG C, "The difluoromethylenesulfonic acid group as a monoanionic phosphate surrogate for obtaining PTP1B inhibitors." Bioorganic & Medicinal Chemistry, 10:2309-2323 (2002)	
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	TR-121	WASSERMAN et al., "The Oxazole-triamide Rearrangement. Application to Pepide Synthesis" TETRAHEDRON LETTERS, vol. 23, no. 37, pages 3831-3834 (1982)	
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	TR-125	ESPANEL X, "The SPOT technique as a tool for studying protein tyrosine phosphatase substrate specificities." Protein Science, 11:2326-2334 (2002)	
	TR-126	SCAPIN G, "The structural basis for the selectivity of benzotriazole inhibitors of PTP1B." Biochemistry, 42:11451-11459 (2003)	
	TR-127	ASANTE-APPIAH E, "The structure of PTP-1B in complex with a peptide inhibitor reveals an alternative binding mode for bisphosphonates." Biochemistry, 41:9043-9051 (2002)	
	TR-128	BUKCZYNSKA P, "The T-cell protein tyrosine phosphatase is phosphorylated on Ser-304 by cyclin-dependent protein kinases in mitosis." Biochemical Journal, 380:939-949 (2004)	
LLS	TR-129	RAGAB A, "The tyrosine phosphatase 1B regulates linker for activation of T-cell phosphorylation and platelet aggregation upon FcgammaRIIa cross-linking." The Journal of Biological Chemistry, 278:40923-40932 (2003)	

Examiner Signature	/Laura L. Stockton/	Date Considered	01/18/2007

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 16 of 20

Complete if Known	
Application Number	10/777,471
Filing Date	02/04/04
First Named Inventor	Adnan M.M. Mjalli
Art Unit	1615
Examiner Name	Unknown
Attorney Docket Number	TTP 2002-07

NON PATENT LITERATURE DOCUMENTS

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	TR-131	LEE K, "Tripeptide inhibitors of Yersinia protein-tyrosine phosphatase." Bioorganic & Medicinal Chemistry Letters, 13:2577-2581 (2003)	
	TR-132	SIMS C, "Tyrosine phosphatase inhibitors selectively antagonize beta-adrenergic receptor-dependent regulation of cardiac ion channels." Molecular Pharmacology, 58:1213-1221 (2000)	
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Examiner Signature	/Laura L. Stockton/	Date Considered	01/18/2007

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 17 of 20

Complete if Known	
Application Number	10/777,471
Filing Date	02-04-04
First Named Inventor	Adnan M. M. Mjalli
Art Unit	1615
Examiner Name	Unknown
Attorney Docket Number	TTP 2002-07

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number: Number - Kind Code[2] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Foreign Patent Document: Country Code[3] - Number[4] - Kind Code[5] (*if known*)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
LLS	TR-134	EP 01019364	06/09/04	Larsen et al.		

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Sheet 18 of 20

Complete if Known	
Application Number	10/777,421
Filing Date	02/04/04
First Named Inventor	Adnan M.M. Mjalli
Art Unit	1615
Examiner Name	Unkown
Attorney Docket Number	TTP 2002-07

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number: Number - Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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Examiner Initials*	Cite No.[1]	Foreign Patent Document: Country Code[3] - Number[4] - Kind Code[5] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T[6]
LLS	TR-135	WO 97/40017	10/30/97	Anderson et al.		
	TR-136	WO 99/02505	01/21/99	LaCrampe et al.		
	TR-137	WO 99/11658	03/11/99	Liebeschuetz et al.		
	TR-138	WO 99/46244	09/16/99	Jeppesen et al.		
	TR-139	WO 99/65942	12/23/99	Gordon et al.		
	TR-140	WO 00/76971	12/21/00	Jones et al.		
	TR-141	WO 01/26656	04/19/01	Chabrier de Lassauniere et al.		
	TR-142	WO 02/010140	02/07/02	Thurieau et al.		
	TR-143	WO 02/04412	01/17/02	Burgess et al.		
LLS	TR-144	WO 02/04459	01/17/02	Anderson et al.		

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet 19 of 20

Complete if Known	
Application Number	10/777,42~~X~~ 427
Filing Date	02/04/04
First Named Inventor	Adnan M.M. Mjalli
Art Unit	1615
Examiner Name	Unkown
Attorney Docket Number	TTP 2002-07

U.S. PATENT DOCUMENTS

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LLS	TR-145	WO 03/020688	03/13/03	Liu et al.		
	TR-146	WO 03/033496	04/24/03	Mjalli et al.		
	TR-147	WO 03/041729	05/22/03	Zhang et al.		
	TR-148	WO 03/048140	06/12/03	Inaba et al.		
	TR-149	WO 03/064376	08/07/03	Swinnen et al.		
	TR-150	WO 03/072537	09/04/03	Szezepanklewicz et al.		
	TR-151	WO 03/073987	09/12/03	Barr et al.		
	TR-152	WO 03/082841	10/09/03	Coppola et al.		
LLS	TR-153	WO 03/092679	11/13/03	Groneberg et al.		

Examiner Signature	/Laura L. Stockton/	Date Considered	01/18/2007

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 20 of 20

Complete if Known	
Application Number	10/777,431
Filing Date	02/04/04
First Named Inventor	Adnan M.M. Mjalli
Art Unit	1615
Examiner Name	Unknown
Attorney Docket Number	TTP 2002-07

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.[1]	Document Number: Number - Kind Code[2] (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
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LLS	TR-154	WO 03/093498	11/13/03	Pei et al.		
	TR-155	WO 04/014415	02/19/04	Zheng et al.		
	TR-156	WO 04/020466	03/11/04	Hooft et al.		
	TR-157	WO 04/041799	05/21/04	Birch et al.		
	TR-158	WO 04/050646	06/17/04	Kenny et al.		
	TR-159	WO 04/071447	08/26/04	Mjalli et al.		
	TR-160	WO 04/071448	08/26/04	Mjalli et al.		
	TR-161	WO 04/074238	09/02/04	Gray et al.		
LLS	TR-162	WO 04/074256	09/02/04	Klopfenstein et al.		

Examiner Signature	/Laura L. Stockton/	Date Considered	01/18/2007

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